

حمل الآن

مجاناً وحصرياً

المراجعة رقم (1)

اختبار شهر نوفمبر



Test

1

Total mark

20

(12 marks)

1 Choose the correct answer from the given ones :

(1) In ΔABC , $a^2 + b^2 - c^2 = \dots\dots\dots$

- (a) $\cos A$ (b) $a b \cos C$ (c) $\cos C$ (d) $2 a b \cos C$

(2) $\lim_{x \rightarrow 0} \frac{(4x+1)^9 - 1}{3x} = \dots\dots\dots$

- (a) $\frac{3}{4}$ (b) $\frac{4}{3}$ (c) 9 (d) 12

(3) The solution set in $\mathbb{R}$ of the inequality : $|x - 1| \geq 3$ equals $\dots\dots\dots$

- (a) $\mathbb{R} -]-2, 4[$ (b) $[-2, 4]$ (c) $\mathbb{R} - [-2, 4]$ (d) $]-2, 4[$

(4) If $x^{\frac{3}{2}} = 64$, then $x = \dots\dots\dots$

- (a) 512 (b) 16 (c) 4 (d) 2

(5) The radius length of the circumcircle of the triangle XYZ in which :

$x = 3$ cm. , $y = 5$ cm. , $z = 7$ cm. approximately equals $\dots\dots\dots$ cm.

- (a) 6 (b) 8 (c) 4 (d) 2

(6) The solution set in $\mathbb{R}$ of the equation : $|2x - 4| = |x + 1|$ equals $\dots\dots\dots$

- (a) $\{1\}$ (b) $\{5\}$ (c) $\{1, 5\}$ (d) $\emptyset$

(7) $\lim_{x \rightarrow 0} \frac{x^7 - 1}{x + 1} = \dots\dots\dots$

- (a) -2 (b) 5 (c) 1 (d) -1

(8) If $\lim_{x \rightarrow 2} \frac{(x)^n - (2)^n}{x - 2} = 32$, then $n = \dots\dots\dots$

- (a) 3 (b) 4 (c) 9 (d) 12

(9) A man deposite L.E. 12000 in a bank that gives annually compound interest 13 % , then the sum of money after 10 years approximately equals L.E. $\dots\dots\dots$

- (a) 40735 (b) 38735 (c) 36049 (d) 46030

(10) The domain of the function $f : f(x) = \frac{1}{|x| - 3}$ is

- (a) $\{3, -3\}$ (b) $[-3, 3]$ (c) $\mathbb{R} - [-3, 3]$ (d) $\mathbb{R} - \{-3, 3\}$

(11) $\lim_{x \rightarrow 5} \frac{\sqrt{x-1}-2}{x-5} = \dots\dots\dots$

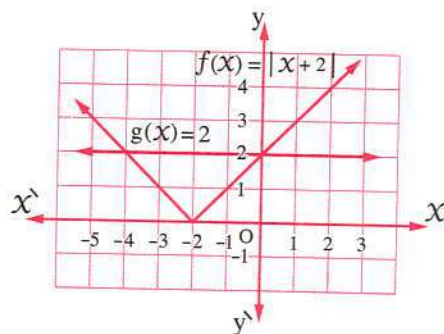
- (a) $\frac{4}{3}$ (b) $\frac{3}{4}$ (c) 4 (d) $\frac{1}{4}$

(12) In the opposite figure :

The solution set of the inequality : $f(x) < g(x)$

in $\mathbb{R}$ is

- (a) $\{-4, 0\}$
 (b) $[-4, 0]$
 (c) $\mathbb{R} - [-4, 0]$
 (d) $]-4, 0[$



2 Answer the following questions :

(1) Find the solution set in $\mathbb{R}$ of the inequality : $\sqrt{4x^2 - 12x + 9} \leq 9$ (2 marks)

(2) Prove that : $\frac{2^x \times 9^{x+1}}{3 \times (18)^x} = 3$ (2 marks)

(3) ABCD is a quadrilateral in which : $AB = 15$ cm. , $BC = 20$ cm. , $CD = 16$ cm. , $AC = 25$ cm. and $m(\angle ACD) = 36^\circ 52'$, find the length of $\overline{AD}$ to the nearest centimetre , then find the area of the quadrilateral ABCD (2 marks)

(4) Find : $\lim_{x \rightarrow 5} \frac{x^2 - 5x}{\sqrt{x+4} - 3}$ (2 marks)

Test

2

Total mark

20

(12 marks)

1 Choose the correct answer from the given ones :

(1) If $f(x) = 5^x$, then $f(-2) = \dots\dots\dots$

(a) -2

(b) 5

(c) $\frac{1}{25}$ (d) $\frac{1}{5}$ (2) $\lim_{x \rightarrow 1} \frac{x^5 - 1}{x - 1} = \dots\dots\dots$

(a) 5

(b) 1

(c) 4

(d) 20

(3) The measure of the smallest angle in ΔABC in which, $a = 8$ cm., $b = 7$ cm., and its perimeter is 21 cm. approximately equals $\dots\dots\dots$ (a) $32^\circ 34'$ (b) $42^\circ 34'$ (c) $36^\circ 34'$ (d) $46^\circ 34'$ (4) The absolute inequality that represents mark of a student from 50 to 70 marks is $\dots\dots\dots$ (a) $|x - 20| < 10$ (b) $|x - 60| < 10$ (c) $|x - 60| \leq 10$ (d) $|x - 20| \leq 10$ (5) The solution set in $\mathbb{R}$ of the equation : $|x - 7| = 2$ is $\dots\dots\dots$ (a) $\{9, 5\}$ (b) $\{7, 3\}$ (c) $\emptyset$ (d) $\{3, -3\}$ (6) $\lim_{x \rightarrow 0} \frac{\sqrt[3]{x+1} - 1}{x} = \dots\dots\dots$

(a) 1

(b) $\frac{1}{3}$

(c) zero

(d) $-\frac{2}{3}$ (7) The solution set of the inequality : $|3 - 2x| \leq 1$ in $\mathbb{R}$ is $\dots\dots\dots$ (a) $[1, 2]$ (b) $]1, 2[$ (c) $\mathbb{R} -]1, 2[$ (d) $\mathbb{R} - [1, 2]$ (8) Which of the following functions represents an increasing exponential function on its domain $\mathbb{R}$?(a) $y = 3(1.05)^x$ (b) $y = 3\left(\frac{1}{1.05}\right)^x$ (c) $y = 3 + (0.5)^x$ (d) $y = (0.05)^x$ (9) The solution set of the equation : $x^{\frac{4}{3}} = 81$ in $\mathbb{R}$ is $\dots\dots\dots$ (a) $\{27, -27\}$ (b) $\{9, -9\}$ (c) $\{9\}$ (d) $\{27\}$ (10) $\lim_{x \rightarrow 0} \frac{(x+2)^5 - 32}{x} = \dots\dots\dots$

(a) 25

(b) 64

(c) 80

(d) 100

(11) $\lim_{x \rightarrow 1} \frac{4 - \sqrt{x+15}}{1 - x^2} = \dots\dots\dots$

(a) 16

(b) -16

(c) $\frac{1}{16}$

(d) $-\frac{1}{16}$

(12) In the opposite figure :

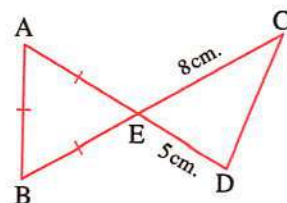
CD = cm.

(a) 6

(b) 7

(c) 8

(d) 9



2 Answer the following questions :

(1) Find in $\mathbb{R}$ the solution set of the inequality : $\sqrt{x^2 - 2x + 1} \geq 4$ (2 marks)

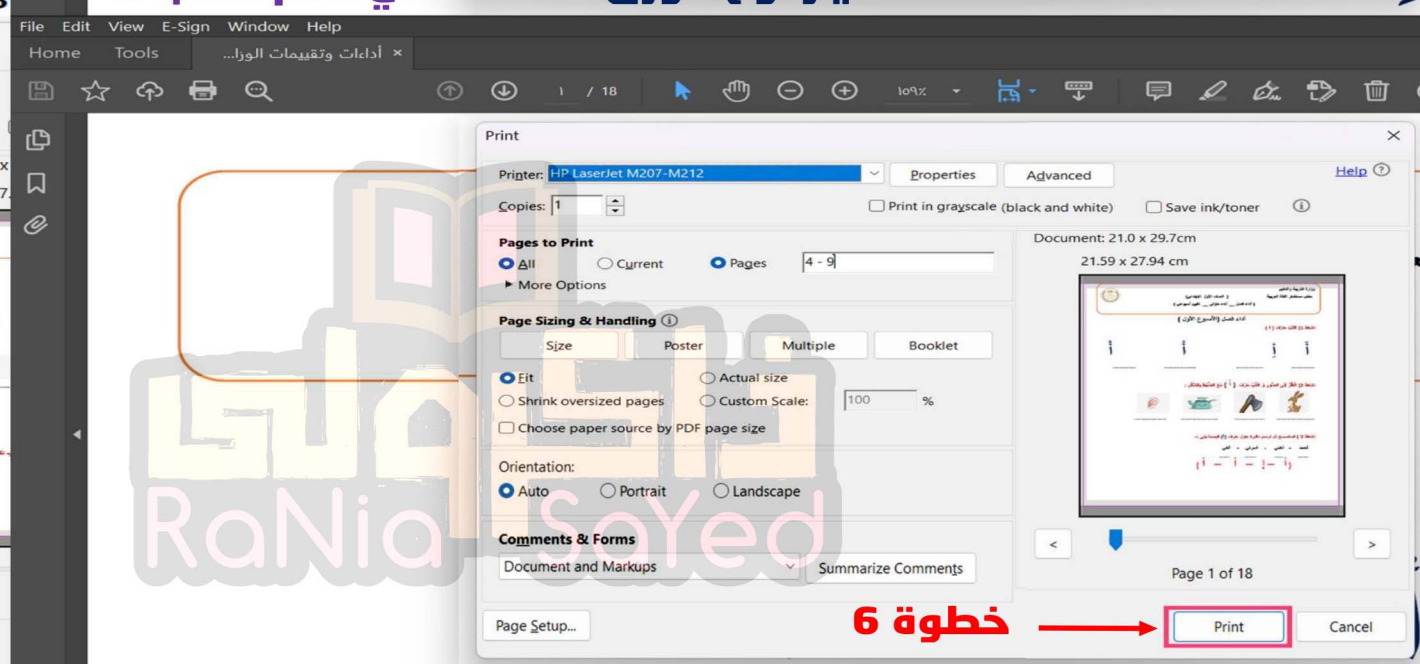
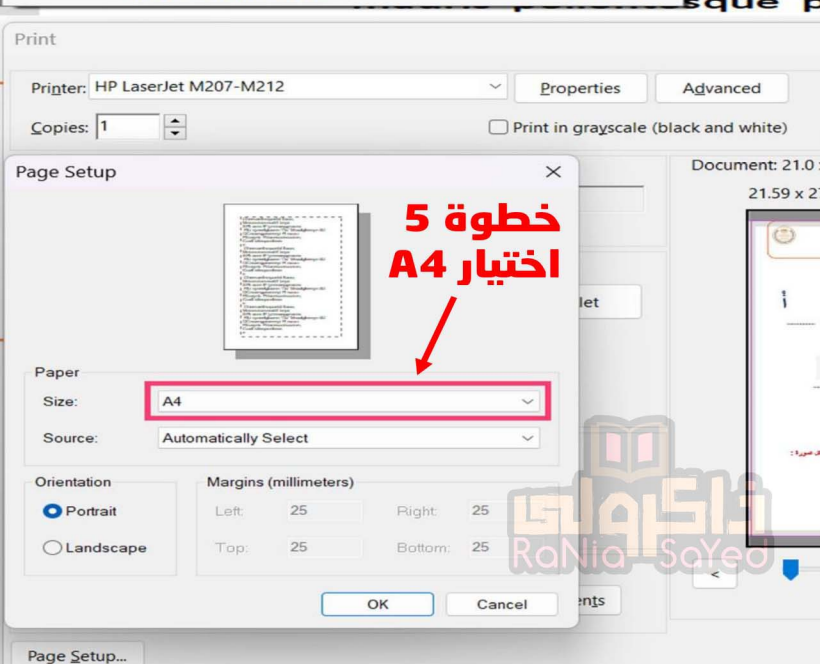
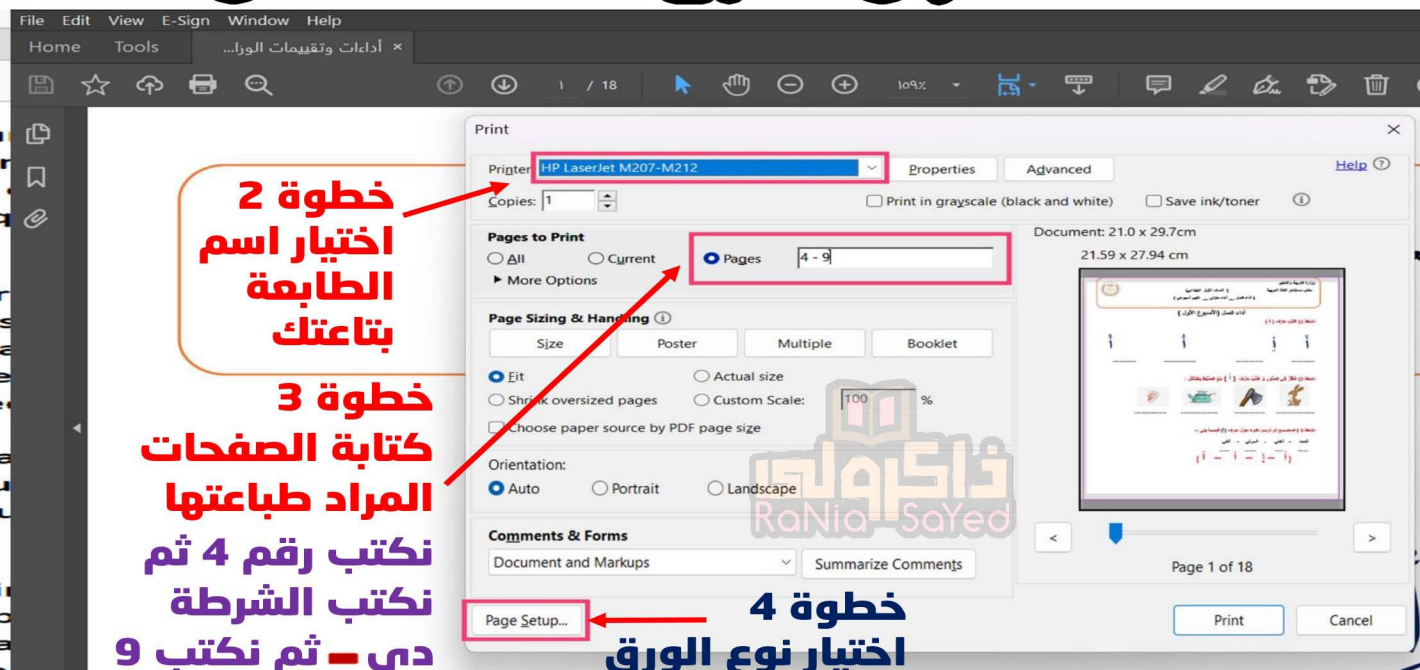
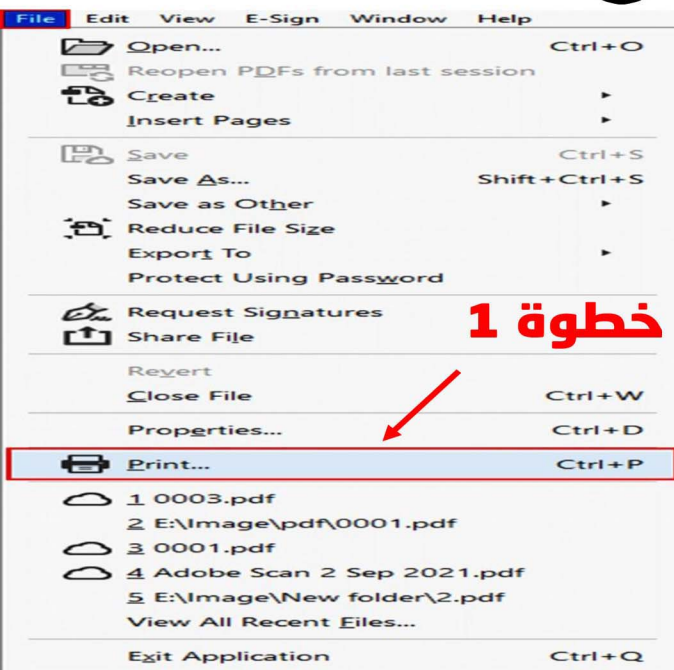
(2) Find in $\mathbb{R}$ the solution set of the equation : $(x - 5)^{\frac{5}{2}} = 32$ (2 marks)

(3) ABCD is a quadrilateral in which : AB = AD = 9 cm. , BC = 5 cm. , CD = 8 cm. , and AC = 11 cm.

Prove that : The figure ABCD is a cyclic quadrilateral. (2 marks)

(4) Find : $\lim_{x \rightarrow 1} \frac{(x+2)^4 - 81}{x-1}$ (2 marks)

كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9



حمل الآن

مجاناً وحصرياً

المراجعة رقم (2)

اختبار شهر نوفمبر



Solving absolute value equations and inequalities

14-

Find in $\mathbb{R}$ the solution set for each of the following :

(1) $|2x - 5| \leq 3$

15-

Find in $\mathbb{R}$ the S.S. of the following equation algebraically : $\sqrt{x^2 - 4x + 4} = 4$

16-

Find in $\mathbb{R}$ the S.S. of the following inequality algebraically : $|x - 3| \geq 5$

17-

Find the solution set in $\mathbb{R}$ of each of the following :

(1) $|2x - 3| + |6 - 4x| \leq 0$

(2) $|2x - 4| = x + 3$

18-

Find graphically in $\mathbb{R}$ the solution set of the inequality : $|5 - x| > 3$

19-

Find in $\mathbb{R}$ the solution set of the inequality : $\sqrt{4x^2 - 12x + 9} > 5$

20-

Find in $\mathbb{R}$ the solution set of each of the following :

(1) $|x + 2| + 5 = 9$

(2) $|2x - 3| \leq 5$

21-

Solve in $\mathbb{R}$ the equation : $2|x - 2| - |2 - x| = 3$

(Unit 2)

Rational exponents and exponential equations

1-

Find the value of x which satisfies : $2^{x+1} = 25$ by using calculator.

2-

Find in $\mathbb{R}$ the solution set of each of the following :

$$\left(\frac{1}{2}\right)^{x+1} + \left(\frac{1}{2}\right)^{x+3} + \left(\frac{1}{2}\right)^{x+5} = 84$$

3-

Simplify :

$$\frac{16^{x+\frac{1}{4}} \times 9^{x+2}}{8^{x-1} \times 18^{x+2}}$$

4-

Find the S.S. of each of the following in $\mathbb{R}$:

$$4^x + 2^{x+1} = 8$$

5-

Put in the simplest form : $\frac{9^{4n+1} \times 4^{2-2n}}{3^{9n+1} \times 48^{1-n}}$

6-

If $f(2x) = 3^x$, solve in $\mathbb{R}$ the equation : $f(2x+4) + f(2x) = 90$

Applications

7-

A patient gets 40 mg. of medicine , his body gets rid of 10 % of this medicine every hour.

(1) Write the exponential function which represents the quantity of medicine left after t hours.

(2) Estimate this quantity of medicine left in the body after 4 hours.

8-

The number of cows in a cattle farm is 80 cows and the reproduction rate of these cows is 18 % annually. Find the number of cows after 4 years , given by $C = a(1 + r)^t$ where t is the number of years , a is the starting amount and r is the annual percentage of reproduction.

The law

13-

$$\lim_{x \rightarrow 4} \frac{\sqrt{x-3}-1}{x-4}$$

14-

Find : (1) $\lim_{x \rightarrow -2} \frac{(x+3)^5 - 1}{x+2}$

15-

Find : (1) $\lim_{x \rightarrow 2} \frac{x^3 + 8}{x+2}$

16-

Find : (1) $\lim_{x \rightarrow 3} \frac{x^5 - 243}{x^2 - 9}$

17-

Find : $\lim_{x \rightarrow 5} \frac{(x-3)^5 - 32}{x-5}$

18-

Find : (1) $\lim_{x \rightarrow -3} \frac{x^4 - 81}{x^5 + 243}$

19-

Find : (1) $\lim_{x \rightarrow -2} \frac{\sqrt[3]{x} + \sqrt[3]{2}}{x + 2}$

20-

Find : (1) $\lim_{x \rightarrow \sqrt{5}} \frac{x^7 - 125\sqrt{5}}{x^4 - 25}$

21-

$$\lim_{x \rightarrow 5} \frac{(x-3)^5 - 32}{x^2 - 5x}$$

22-

$$\lim_{x \rightarrow -3} \frac{x^4 - 81}{x^5 + 243}$$

23-

$$\lim_{x \rightarrow -3} \frac{x^4 - 81}{x^5 + 243}$$

24-

$$\lim_{x \rightarrow 2} \frac{x^7 - 128}{x^5 - 32}$$

25-

Find : (1) $\lim_{x \rightarrow 2} \frac{2x^4 - 32}{x^2 - 4}$

26-

Find : (1) $\lim_{x \rightarrow \frac{1}{3}} \frac{27x^4 - \frac{1}{3}}{3x - 1}$

Limit of the function at infinity

27-

Find : (1) $\lim_{x \rightarrow \infty} \frac{2x^3 - 5x}{x^4 + 3}$

28-

$$\lim_{x \rightarrow \infty} \frac{2x^3 - 9}{|3x|^3 + 7}$$

29-

$$\lim_{x \rightarrow \infty} \frac{5x^{-3} + 4x^{-2} - 3}{7x^{-3} - 2x^{-2} + 8}$$

30-

Find : (1) $\lim_{x \rightarrow \infty} (\sqrt{4x^2 - 2x + 1} - 2x)$

31-

$$\lim_{x \rightarrow \infty} \frac{2x^2 - x + 1}{x^3 - x^2 + 1}$$

32-

Find : (1) $\lim_{x \rightarrow \infty} \frac{2x^3 - 3}{3x^2 + 1}$

33-

$$\lim_{x \rightarrow \infty} \frac{x^{-2} + 3}{x^{-3} + 6}$$

34-

Find : (1) $\lim_{x \rightarrow \infty} \frac{\sqrt{9x^2 + 3}}{6x - 1}$

35-

$$\lim_{x \rightarrow \infty} \frac{5 - 6x - 3x^2}{2x^2 + x + 4}$$

36-

$$\lim_{x \rightarrow \infty} \frac{-x}{\sqrt{4 + x^2}}$$

37-

Find : (1) $\lim_{x \rightarrow \infty} \frac{x^3 - 4x + 5}{(2x - 1)^3}$

38-

Find : (1) $\lim_{x \rightarrow \infty} \frac{5 - 6x - 3x^2}{2x^2 + x + 4}$

39-

Find : (1) $\lim_{x \rightarrow \infty} \frac{3x^2 + x - 1}{8x^2 - 3}$

40-

$$\lim_{x \rightarrow \infty} \frac{2x^{-1} - 3x^{-2}}{4 + x^{-1}}$$

41-

$$\lim_{x \rightarrow \infty} \frac{3x + \sqrt{4x^2 + 5}}{5x - 3}$$

42-

$$\lim_{x \rightarrow \infty} (\sqrt{x^2 + 5x} - x)$$

43-

$$\lim_{x \rightarrow \infty} \frac{x^3 - 2}{|x|^3 + 1}$$

44-

Find : (1) $\lim_{x \rightarrow \infty} \frac{x^3 - 4x + 5}{(2x - 1)^3}$

45-

Find : (1) $\lim_{x \rightarrow \infty} (\sqrt{x^2 + 5x} - x)$

46-

$\lim_{x \rightarrow \infty} \frac{1}{x} \sqrt{3 + 4x^2}$

Limits of trigonometric functions

47-

$$\lim_{x \rightarrow 0} \frac{1 - \cos^2 2x}{3x^2}$$

48-

$$\lim_{x \rightarrow 0} \frac{x - x \cos x}{\sin^2 3x}$$

49-

$$\lim_{x \rightarrow 0} \frac{\sin 3x - \sin 2x}{5x}$$

50-

Find : (1) $\lim_{x \rightarrow 0} \frac{2x + \sin 3x}{\tan 5x}$

51-

Find : $\lim_{x \rightarrow 0} \frac{x^3 + \sin 3x}{5x \cos 2x}$

52-

Find : (1) $\lim_{x \rightarrow 0} \frac{x - x \cos x}{\sin^2 3x}$

53-

$$\lim_{x \rightarrow 0} \frac{x^2 + \sin 3x}{5x \cos 2x}$$

54-

$$\lim_{x \rightarrow 0} \frac{\sin^2 3x - \tan 2x^2}{x^2 \cos 4x}$$

55-

$$\lim_{x \rightarrow 0} \frac{x \tan 2x \cos 3x}{x^2 + \sin^2 3x}$$

56-

Find : (1) $\lim_{x \rightarrow 1} \frac{\sin (x-1)}{x^2 + x - 2}$

57-

Find : (1) $\lim_{x \rightarrow 0} \frac{x - x \cos x}{\sin^2 3x}$

58-

Find : (1) $\lim_{x \rightarrow 0} \frac{1 - \cos x + \sin x}{1 - \cos x - \sin x}$

59-

$$\lim_{x \rightarrow 0} \frac{\sin 3x - \tan 2x}{5x}$$

60-

$$\lim_{x \rightarrow 0} \frac{\sin 2x + 5 \sin 3x}{x}$$

61-

$$\lim_{x \rightarrow 0} \frac{x \tan x + \sin^2 3x}{2x^2 + \sin 3x^2}$$

Existence of the limit of a piecewise function

62-

Find : (1) $\lim_{x \rightarrow \pi} f(x)$ where $f(x) = \begin{cases} \frac{2 \sin x}{\pi - x} & , \quad x < \pi \\ 1 - \cos x & , \quad x > \pi \end{cases}$

(2) $\lim_{x \rightarrow \infty} x \tan x^{-1}$

63-

$$f(x) = \begin{cases} \frac{x \tan x + \sin^2 3x}{5x^2} \\ 2 \cos 2x \end{cases}$$

64-

Discuss the existence of the limit of the function f where

$$f(x) = \begin{cases} \frac{1 - \cos x}{x} & , \quad x > 0 \\ 2 \sin x & , \quad x \leq 0 \end{cases} \text{ at } x = 0$$

65-

Find : $\lim_{x \rightarrow 3} f(x)$ if $f(x) = \begin{cases} x^2 + 1 & , \quad x < 3 \\ 3x + 1 & , \quad x > 3 \end{cases}$

66-

If $f(x) = \begin{cases} x^2 - 2x & , \quad -2 < x < 1 \\ 3x - 4 & , \quad 1 \leq x < 4 \end{cases}$

, discuss the existence of each of the following :

(1) $\lim_{x \rightarrow -2} f(x)$

(2) $\lim_{x \rightarrow 1} f(x)$

67-

If $\lim_{x \rightarrow 2} f(x) = 7$ where $f(x) = \begin{cases} x^2 + 3m & , \quad x < 2 \\ 5x + k & , \quad x > 2 \end{cases}$, find m and k

68-

Discuss the existence of $\lim_{x \rightarrow 0} f(x)$ **which** $x \rightarrow 0$ **where**

$$f(x) = \begin{cases} \frac{5x^2 + \tan 2x^2}{\sin^2 x} & , \quad x > 0 \\ 7 \cos 3x & , \quad x < 0 \end{cases}$$

69-

Find : (1) $\lim_{x \rightarrow \pi} f(x)$ where $f(x) = \begin{cases} \frac{2 \sin x}{\pi - x} & , \quad x < \pi \\ 1 - \cos x & , \quad x > \pi \end{cases}$

(2) $\lim_{x \rightarrow \infty} x \tan x^{-1}$

70-

If $f(x) = \begin{cases} \frac{x^2 - 7x + 12}{x - 3} & , \quad x > 3 \\ ax - 7 & , \quad x < 3 \end{cases}$

, $\lim_{x \rightarrow 3} f(x) = -1$, then find the value of a

The cosine rule

14-

The perimeter of the triangle ABC is 52 cm. , $a = 13$ cm. and $b = 17$ cm.
Find the measure of the greatest angle.

15-

Solve the triangle ABC in which $a = 5$ cm. , $b = 7$ cm. and $m(\angle C) = 65^\circ$

16-

Solve the triangle ABC in which $a = 9$ cm. , $b = 7$ cm. and $c = 5$ cm. , then find its area.

17-

In ΔABC , if $a = 4$ cm. , $b = 5$ cm. and $c = 6$ cm. , **prove that** : $\cos C = \cos 2 A$
 , then find the circumference of the circumcircle of ΔABC

18-

Solve the triangle ABC in which $a = 9$ cm. , $b = 15$ cm. and $m(\angle C) = 106^\circ$

19-

Solve the triangle ABC in which $a = 15$ cm. , $b = 13$ cm. and $c = 14$ cm.

20-

ABC is a triangle in which $a = 27$ cm. , $b = 35$ cm. and $c = 18$ cm.
Find the measure of the greatest angle.

Solution of the triangle

21-

In $\triangle ABC$, $\cos A = \frac{2}{5}$, $b = 2.5$ cm. and $c = 2$ cm.

Prove that : $\triangle ABC$ is an isosceles triangle and find its area.

22-

In $\triangle ABC$, if $m(\angle A) = 35^\circ$, $a = 17$ cm. and $b = 20$ cm.

Prove that : $\triangle ABC$ has two solutions , then find them.

23-

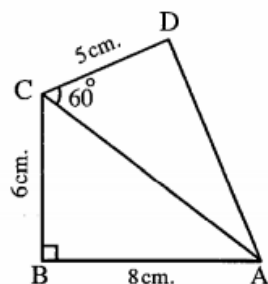
In the opposite figure :

ABCD is a quadrilateral in which

$AB = 8$ cm. , $BC = 6$ cm. , $m(\angle B) = 90^\circ$

, $DC = 5$ cm. and $m(\angle ACD) = 60^\circ$

Find the area of the circumcircle of $\triangle ADC$



24-

In ΔABC , show whether it has only 1 solution , 2 solutions or non ,
given your answer to the nearest decimal :

(1) $m(\angle B) = 110^\circ$, $b = 8$ cm. and $c = 5$ cm.

(2) $m(\angle A) = 60^\circ$, $a = 7$ cm. and $b = 9$ cm.

25-

Show whether the triangle ABC has one , two or no solution ,
given that : $m(\angle A) = 100^\circ$, $a = 12$ cm. and $b = 15$ cm.

26-

ABC is a triangle in which $m(\angle A) = 52^\circ$, $a = 21$ cm. and $b = 26$ cm.

Prove that : ΔABC has two solutions , then find them.

27-

ABC is a triangle in which : $\frac{\sin A}{3} = \frac{\sin B}{4} = \frac{\sin C}{5}$

and its perimeter = 24 cm. Find its area.

حمل الآن

مجاناً وحصرياً

المراجعة رقم (3)

اختبار شهر نوفمبر



٦ الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - الأداء الصفى - الأسبوع السادس

- 1) Find algebraically in R the solution set of the equation: $|2x + 1| = 5$
- 2) Find algebraically in R the solution set of the equation: $|x - 3| + 4 = 2$
- 3) Find algebraically in R the solution set of the equation: $|x - 1| + 3x = 7$
- 4) Find algebraically in R the solution set of the inequality: $|2x - 3| \leq 7$
- 5) Find algebraically in R the solution set of the inequality: $|x + 4| > 6$
- 6) Find algebraically in R the solution set of the inequality: $|x - 3| + 4 < 8$
- 7) Find algebraically in R the solution set of the inequality: $|x + 3| \geq 4$

8) Find: $\lim_{x \rightarrow 2} \frac{x^2 - 2x}{x^2 - 4}$

9) Find: $\lim_{x \rightarrow 0} \frac{(x+3)^2 - 9}{5x}$

10) Find: $\lim_{x \rightarrow -2} \left(\frac{x^2}{x+2} - \frac{4}{x+2} \right)$

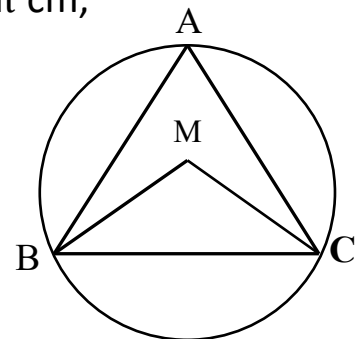
11) Find: $\lim_{x \rightarrow -5} \frac{(x+2)^2 - 9}{x+5}$

12) Find: $\lim_{x \rightarrow 7} \frac{\sqrt{x+2} - 3}{x-7}$

13) Find: $\lim_{x \rightarrow 6} \frac{x-6}{\sqrt{x-5} - 1}$

- 14) If the circumference of the circumcircle of ΔABC is 10π cm, $m(\angle B) = 120^\circ$, then find **b** to the nearest cm.

- 15) **In the opposite figure:** if the length of the radius of circle M is 6 cm and $m(\angle BMC) = 130^\circ$, then find the length of $\overline{BC}$ to the nearest tenth.



6 الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - الأداء المنزلى - الأسبوع السادس

- 1) Find algebraically in R the solution set of the equation: $|x - 2| = 3$
- 2) Find algebraically in R the solution set of the equation: $|x - 1| - 2 = 4$
- 3) Find algebraically in R the solution set of the equation: $|x + 2| + 2x - 8 = 0$
- 4) Find algebraically in R the solution set of the inequality: $|x - 2| \leq 5$
- 5) Find algebraically in R the solution set of the inequality: $|x - 4| > 2$
- 6) Find algebraically in R the solution set of the inequality: $|x - 3| - 2 < 3$
- 7) Find algebraically in R the solution set of the inequality: $|x + 1| \geq 2$

8) Find: $\lim_{x \rightarrow 3} \frac{x^2 - 3x}{x^2 - 9}$

9) Find: $\lim_{x \rightarrow 0} \frac{(x+5)^2 - 25}{7x}$

10) Find: $\lim_{x \rightarrow 1} \left(\frac{x^2}{x-1} - \frac{1}{x-1} \right)$

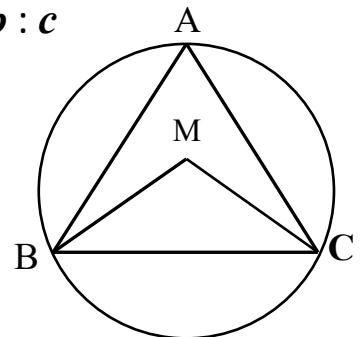
11) Find: $\lim_{x \rightarrow -7} \frac{(x+3)^2 - 16}{x+7}$

12) Find: $\lim_{x \rightarrow 1} \frac{\sqrt{x+3} - 2}{x-1}$

13) Find: $\lim_{x \rightarrow 5} \frac{x-5}{\sqrt{x-1} - 2}$

14) In ΔABC , if $m(\angle A) = 30^\circ$, $m(\angle B) = 60^\circ$, then find $a : b : c$

15) **In the opposite figure:** if the length of the diameter of circle M is 10 cm and $m(\angle BMC) = 120^\circ$, then find the value of a to the nearest tenth.



7 الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - الأداء الصفى - الأسبوع السابع

1) Find algebraically and graphically in R the solution set of the equation:

$$|x - 2| = 5$$

2) Find algebraically and graphically in R the solution set of the equation:

$$|x| - 2 = 2$$

3) Find algebraically and graphically in R the solution set of the inequality:

$$|x + 1| \leq 3$$

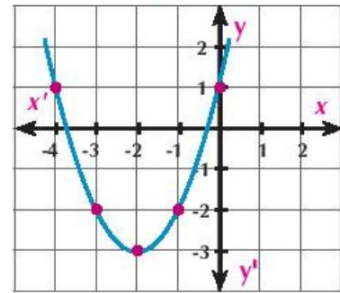
4) Find algebraically and graphically in R the solution set of the inequality:

$$|x - 3| > 4$$

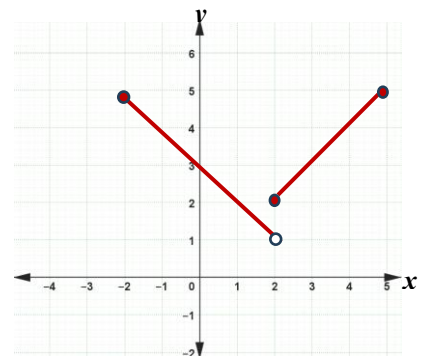
5) If $f(x) = \begin{cases} x^2 + 2 & \text{when } -2 \leq x < 2 \\ 3x & \text{when } x \geq 2 \end{cases}$, then find $f(1)$, $f(0)$ and $f(3)$

6) Find the **Domain** of the function $f: f(x) = \sqrt{x + 3}$

7) Investigate the monotony of the function represented by the opposite graph.



8) If the opposite graph represents the curve of a function f , then find from the graph the domain and the range of the function f .



9) Investigate the type of each function whether it is even, odd or otherwise:

a) $f(x) = x + x^3$

b) $g(x) = x^2 + \cos x$

10) Find: $\lim_{x \rightarrow 3} \frac{x+2}{x-1}$

11) Find: $\lim_{x \rightarrow 4} \frac{x^2-3x-4}{x-4}$

12) Find: $\lim_{x \rightarrow 1} \frac{(x+3)^2-16}{x^2-1}$

13) Find: $\lim_{x \rightarrow 5} \frac{\sqrt{x-1}-2}{x-5}$

14) In ΔABC if $m(\angle A) = 75^\circ$, $b=7$ cm , $c=13$ cm, then find a .

15) In ΔABC if $m(\angle C) = 100^\circ$, $a=10$ cm , $b=6$ cm, then find the perimeter of ΔABC to the nearest cm.

7 الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - الأداء المنزلى - الأسبوع السابع

1) Find algebraically and graphically in R the solution set of the equation:

$$|x - 1| = 4$$

2) Find algebraically and graphically in R the solution set of the equation:

$$|x| - 3 = 0$$

3) Find algebraically and graphically in R the solution set of the inequality:

$$|x + 2| \leq 2$$

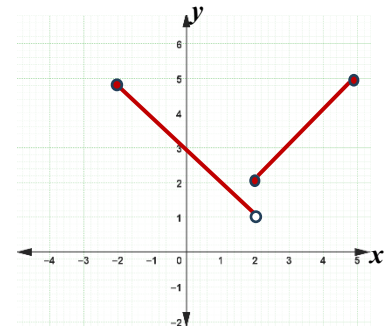
4) Find algebraically and graphically in R the solution set of the inequality:

$$|x - 1| > 5$$

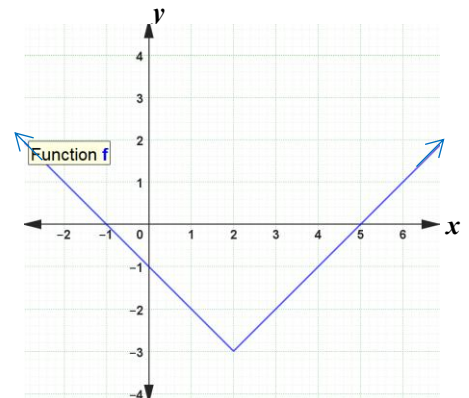
5) If $f(x) = \begin{cases} 2x^2 - 1 & \text{when } -2 \leq x < 2 \\ 3x + 1 & \text{when } 2 \leq x < 7 \end{cases}$, then find $f(1)$, $f(0)$ and $f(6)$

6) Find the **Domain** of the function $f: f(x) = \sqrt{x - 1}$

7) Investigate the monotony of the function represented by the opposite graph.



8) If the opposite graph represents the curve of a function f , then find from the graph the domain and the range of the function f .



9) Investigate the type of each function whether it is even, odd or otherwise:

a) $f(x) = x^2 - x^3$

b) $g(x) = x^5 + \sin x$

10) Find: $\lim_{x \rightarrow 2} \frac{x}{x+1}$

11) Find: $\lim_{x \rightarrow 1} \frac{x^2 - 5x + 4}{x^2 - 1}$

12) Find: $\lim_{x \rightarrow 2} \frac{(x+1)^2 - 9}{x-2}$

13) Find: $\lim_{x \rightarrow 6} \frac{\sqrt{x-2} - 2}{x-6}$

14) In ΔABC if $m(\angle A) = 60^\circ$, $b=12$ cm , $c=9$ cm, then find a to the nearest cm .

15) In ΔABC if $m(\angle B) = 40^\circ$, $a=10$ cm , $c=6$ cm, then find the perimeter of ΔABC to the nearest cm.

7 الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - التقييمات الأسبوعية - الأسبوع السابع

First Group

- 1) Find in R the solution set of the equation: $|x - 4| = 7$
- 2) Find the **Domain** of the function $f: f(x) = \sqrt{x - 3}$
- 3) Investigate the type of the function $f: f(x) = x \tan x$, whether it is even, odd or otherwise.
- 4) In ΔABC if $m(\angle B) = 50^\circ$, $a = 15$ cm, $c = 8$ cm, then find the perimeter of ΔABC to the nearest cm.
- 5) Find: $\lim_{x \rightarrow 2} \frac{x^2 - x - 2}{x^2 - 4}$

Second Group

- 1) Find in R the solution set of the equation: $|x - 5| = 3$
- 2) Find the **Domain** of the function $f: f(x) = \sqrt{x - 4}$
- 3) Investigate the type of the function $f: f(x) = x \sin x$, whether it is even, odd or otherwise.
- 4) In ΔABC if $m(\angle A) = 50^\circ$, $b = 12$ cm, $c = 9$ cm, then find the perimeter of ΔABC to the nearest cm.
- 5) Find: $\lim_{x \rightarrow 3} \frac{x^2 - 2x - 3}{x^2 - 9}$

Third Group

- 1) Find in $\mathbb{R}$ the solution set of the equation: $|x - 1| = 8$
- 2) Find the **Domain** of the function $f: f(x) = \sqrt{x - 7}$
- 3) Investigate the type of the function $f: f(x) = x \cos x$, whether it is even, odd or otherwise.
- 4) In ΔABC if $m(\angle C) = 70^\circ$, $b = 18$ cm, $a = 13$ cm, then find the perimeter of ΔABC to the nearest cm.
- 5) Find: $\lim_{x \rightarrow 1} \frac{x^2 + 2x - 3}{x^2 - 1}$

8 الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - الأداء الصفى - الأسبوع الثامن

1) Simplify $\frac{9^{4m+1} \times 4^{2-2m}}{3^{9m+1} \times 48^{1-m}}$ to the simplest form.

2) Find in R the solution set of the equation: $x^{\frac{4}{3}} = 16$

3) Find in R the solution set of the equation: $x^{\frac{3}{4}} = 27$

4) Find in R the solution set of the equation: $x^{\frac{2}{5}} - 2x^{\frac{1}{5}} - 3 = 0$

5) Find in R the solution set of the equation: $\sqrt{x^2} = 3$

6) Find in R the solution set of the equation: $\sqrt[5]{x^4} = 81$

7) Find in R the solution set of the equation: $\sqrt{x^3} = 64$

8) Find: $\lim_{x \rightarrow 2} \frac{x^7 - 128}{x - 2}$

9) Find: $\lim_{x \rightarrow 3} \frac{x^4 - 81}{x^5 - 243}$

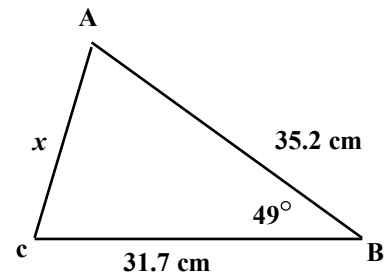
10) Find: $\lim_{x \rightarrow -2} \frac{x^5 + 32}{x^3 + 8}$

11) Find: $\lim_{x \rightarrow 3} \frac{2x^5 - 486}{x^3 - 27}$

12) Find: $\lim_{x \rightarrow 1} \frac{2x^7 - 2}{x^2 - 1}$

13) Find: $\lim_{x \rightarrow 1} \frac{27x^3 - 1}{3x - 1}$

14) In the opposite figure
find the value of x to the nearest tenth.



15) In ΔABC if $a = 9$ cm, $b = 15$ cm and $\cos C = 0.8$,
then find the perimeter of ΔABC to the nearest cm.



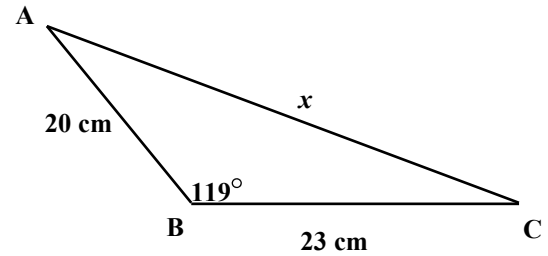
8 الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - الأداء المنزلى - الأسبوع الثامن

- 1) Simplify $\frac{25^{4k-1} \times 9^{2k-2}}{5^{7k-1} \times 405^{k-1}}$ to the simplest form.
- 2) Find in R the solution set of the equation: $x^{\frac{4}{3}} = 81$
- 3) Find in R the solution set of the equation: $x^{\frac{3}{4}} = 8$
- 4) Find in R the solution set of the equation: $x^{\frac{4}{5}} - 3x^{\frac{2}{5}} - 4 = 0$
- 5) Find in R the solution set of the equation: $\sqrt{x^2} = 4$
- 6) Find in R the solution set of the equation: $\sqrt[5]{x^4} = 81$
- 7) Find in R the solution set of the equation: $\sqrt{x^3} = 8$
- 8) Find: $\lim_{x \rightarrow 2} \frac{x^6 - 64}{x - 2}$
- 9) Find: $\lim_{x \rightarrow 3} \frac{x^5 - 243}{x^3 - 27}$
- 10) Find: $\lim_{x \rightarrow -2} \frac{x^5 + 32}{x + 2}$
- 11) Find: $\lim_{x \rightarrow 3} \frac{2x^5 - 486}{x^2 - 9}$

12) Find: $\lim_{x \rightarrow -2} \frac{2x^9 + 1024}{x^2 - 4}$

13) Find: $\lim_{2x \rightarrow 1} \frac{32x^5 - 1}{2x - 1}$

14) In the opposite figure:
find the value of x to the nearest tenth.



15) In ΔABC if $a = 12$ cm, $b = 8$ cm and $\cos C = 0.6$,
then find the perimeter of ΔABC to the nearest cm.

8 الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - التقييمات الأسبوعية - الأسبوع الثامن

FIRST GROUP

- 1) Find in R the solution set of the equation: $\sqrt{x^2} = 6$
- 2) Find in R the solution set of the equation: $x^{\frac{2}{3}} - 3x^{\frac{1}{3}} - 4 = 0$
- 3) Find: $\lim_{x \rightarrow 2} \frac{x^5 - 32}{x - 2}$
- 4) Find: $\lim_{x \rightarrow 3} \frac{x^5 - 243}{x^3 - 27}$
- 5) In ΔABC if $a = 12$ cm, $b = 10$ cm and $\cos C = 0.4$, then find the perimeter of ΔABC to the nearest cm.

SECOND GROUP

- 1) Find in R the solution set of the equation: $\sqrt{x^2} = 4$
- 2) Find in R the solution set of the equation: $x^{\frac{2}{3}} - 8x^{\frac{1}{3}} - 9 = 0$
- 3) Find: $\lim_{x \rightarrow 2} \frac{x^5 - 32}{x^3 - 8}$
- 4) Find: $\lim_{x \rightarrow 1} \frac{x^7 - 1}{x^3 - 1}$
- 5) In ΔABC if $a = 16$ cm, $b = 12$ cm and $\cos C = 0.6$, then find the perimeter of ΔABC to the nearest cm.

THIRD GROUP

- 1) Find in R the solution set of the equation: $\sqrt{x^2} = 5$
- 2) Find in R the solution set of the equation: $x^{\frac{2}{3}} + x^{\frac{1}{3}} - 2 = 0$
- 3) Find: $\lim_{x \rightarrow 2} \frac{x^5 - 32}{x^4 - 16}$
- 4) Find: $\lim_{x \rightarrow 1} \frac{x^5 - 1}{x^2 - 1}$
- 5) In ΔABC if $a = 10$ cm, $c = 6$ cm and $\cos B = 0.5$, then find the perimeter of ΔABC to the nearest cm.



⑨ الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - الأداء الصفى - الأسبوع التاسع ⑨

1) Reduce $\frac{(32)^{\frac{-3}{5}} \times (8)^{\frac{2}{3}}}{\sqrt[4]{4} \times \sqrt[8]{(16)^5}}$ to the simplest form.

2) Reduce to the simplest form: $(x^{\frac{1}{3}} - y^{\frac{1}{3}})(x^{\frac{2}{3}} + x^{\frac{1}{3}}y^{\frac{1}{3}} + y^{\frac{2}{3}})$

3) Find in R the solution set of the equation: $(x - 5)^{\frac{5}{2}} = 32$

4) Graph each of the following functions, then find the domain and the range of each function. Show which of them is increasing and which is decreasing.

a) $f(x) = 3^x$

a) $f(x) = (\frac{1}{3})^x$

5) If $f(x) = 5^x$, then find the value of: $f(x) \times f(-x)$

6) If the curve of the function $f(x) = a^x$ passes through the point (5,32), then find the value of a

7) Find: $\lim_{x \rightarrow 1} \frac{x^{15} - 1}{5x^2 + 3x - 8}$

8) Find: $\lim_{x \rightarrow 0} \frac{(x+3)^5 - 243}{5x}$

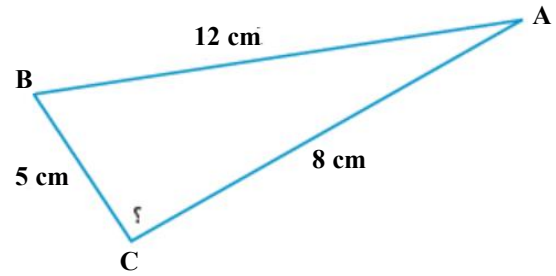
9) Find: $\lim_{x \rightarrow 2} \frac{x^7 + x^5 - 160}{x - 2}$

10) Find: $\lim_{x \rightarrow 2} \frac{x^5 - 32}{5x - 10}$

11) Find: $\lim_{x \rightarrow 4} \frac{3x^3 - 192}{x - 4}$

12) Find: $\lim_{x \rightarrow 0} \frac{(x+1)^3 - 1}{x}$

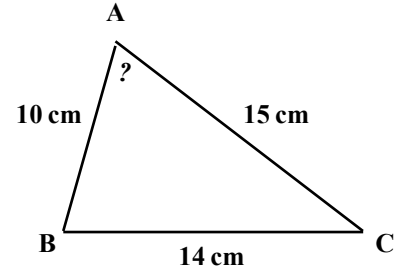
13) In the opposite figure find $m(\angle C)$



14) In $\triangle ABC$ if $a = 17$ cm, $b = 13$ cm and $c = 9$ cm, then find $m(\angle A)$

15) Find measure of the smallest angle in $\triangle ABC$ given that: $a = 7$ cm, $b = 5$ cm and $c = 9$ cm.

13) In the opposite figure find $m(\angle A)$



14) In $\triangle ABC$ if $a = 10$ cm, $b = 8$ cm and $c = 12$ cm, then find $m(\angle B)$

15) Find measure of the greatest angle in $\triangle ABC$ given that: $a = 7$ cm, $b = 10$ cm and $c = 12$ cm.

٩ الرياضيات العامة لغات - للصف الثانى الثانوي - الشعبة الأدبية - التقييمات الأسبوعية - الأسبوع التاسع ٩

First Group

- 1) Find in R the solution set of the equation: $(x + 2)^{\frac{3}{2}} = 27$
- 2) If the curve of the function $f(x) = a^x$ passes through the point (3, 64) , then find the value of a
- 3) Find: $\lim_{x \rightarrow 1} \frac{x^{19} - 1}{5x^2 + x - 6}$
- 4) Find: $\lim_{x \rightarrow 1} \frac{(x+2)^5 - 243}{x-1}$
- 5) In ΔABC if $a = 12$ cm, $b = 13$ cm and $c = 14$ cm, then find $m(\angle B)$

Second Group

- 1) Find in R the solution set of the equation: $(x + 1)^{\frac{3}{2}} = 8$
- 2) If the curve of the function $f(x) = a^x$ passes through the point (3, 125), then find the value of a
- 3) Find: $\lim_{x \rightarrow 1} \frac{x^{15} - 1}{x^2 + x - 2}$
- 4) Find: $\lim_{x \rightarrow 5} \frac{(x-3)^7 - 128}{x-5}$
- 5) In ΔABC if $a = 6$ cm, $b = 5$ cm and $c = 7$ cm, then find $m(\angle A)$

Third Group

- 1) Find in $\mathbb{R}$ the solution set of the equation: $(x - 3)^{\frac{3}{2}} = 125$
- 2) If the curve of the function $f(x) = a^x$ passes through the point $(7, 128)$, then find the value of a
- 3) Find: $\lim_{x \rightarrow 1} \frac{x^9 - 1}{2x^2 + 5x - 7}$
- 4) Find: $\lim_{x \rightarrow 4} \frac{(x-1)^4 - 81}{x-4}$
- 5) In $\triangle ABC$ if $a = 11$ cm, $b = 8$ cm and $c = 17$ cm, then find $m(\angle C)$

كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9

